

Article

# Impact of trade in goods data collection changes on UK trade statistics: adjustments to 2021 EU imports estimates

Summary of adjustments to account for HM Revenue and Customs data collection changes resulting from EU exit and the impact on Office for National Statistics (ONS) UK trade statistics.

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# 1 . Overview

Since the UK left the EU, the arrangements for how the UK trades with the EU have changed. We are keen at the Office for National Statistics (ONS), working with colleagues in HM Revenue and Customs (HMRC) and elsewhere, to keep users updated on the impact of changes to trade data collection on our trade statistics and how we plan to account for these impacts.

In our previous articles on the [Impact of trade in goods data collection changes on UK trade statistics](#), we have provided information on the data collection changes, as well as detail of the discontinuity between the two compilation methods.

To account for these discontinuities, we have now applied adjustments to our estimates of goods imports from the EU for the period January to December 2021. These adjustments have been applied to ONS [UK trade statistics](#) in line with the [National Accounts Revisions Policy](#), with revised estimates incorporated into [GDP quarterly national accounts, UK: July to September 2022](#) on 13 January 2023.

This article summarises these adjustments to our estimates of goods imports from the EU in 2021. It also details further work that is ongoing to review the pre-2021 discontinuity in trade in goods with the EU as well as the impact of Staged Customs Controls in 2022. We will keep users informed of any further changes as we continue to provide our best estimates of trade.

## 2 . Summary of the impact of data collection change on UK imports from the EU

In January 2022, [HM Revenue and Customs \(HMRC\) implemented a data collection change](#) affecting data on imports from the EU to Great Britain (GB). HMRC investigated the change in data collection methods for GB imports from the EU, concluding that, when comparing the components that form the trade in goods data in 2021 and 2022, there was a discontinuity of around 6% by value between the two compilation methods.

This discontinuity was caused by a combination of data not previously collected under the Intrastat survey. These data were:

- traders with an Economic Operators Registration and Identification (EORI) number, who are not Value Added Tax (VAT) registered and therefore not in the 2021 dataset
- traders with an EORI number, who are VAT registered but not found in the 2021 dataset
- trade from parcel post

More detail on the findings of the investigation can be found in our article, [Impact of trade in goods data collection changes on UK trade statistics: 2021 to 2022](#).

### **3 . Approach for applying adjustments to imports from the EU in 2021**

After concluding the investigation into the impact of the data collection change on goods imports from the EU and considering possible options, we have now implemented adjustments to our estimates of goods imports from the EU for the period January to December 2021. These adjustments account for data which were not previously collected under the Intrastat survey.

As the data collection change for imports from the EU to Great Britain (GB) moved from the Intrastat survey to customs declarations in January 2022 – 12 months after the equivalent change for GB exports to the EU – estimates of imports from, and exports to, the EU were on a different basis to each other in 2021. The adjustments made by the Office for National Statistics (ONS), described in this article, bring the two series onto a like-for-like basis such that the impact of the change of data source is now seen at the same point in time for both imports from, and exports to, the EU. Additionally, the revised estimates are now in line with the equivalent statistics as published by EU countries, who also switched to customs declarations for their reporting of UK trade in both directions in 2021.

The adjustments represent an overall uplift of 6.6% from the previous estimates, which equates to 6.2% of the new estimates (which we refer to as uplift contribution to revised 2021 EU imports). This is in line with the previously published discontinuity of approximately 6%.

The adjustment method consisted of two approaches, one applied at chapter level (96 chapters) to account for estimated trade from traders not found in the 2021 dataset. This has been in the form of an uplift percentage applied to all reported trade across the year. There was a separate approach for chapter 99 (other products) to account for the inclusion of parcel post trade into 2021 EU imports figures, an additive adjustment which takes into consideration the monthly variation of parcel post data.

Adjustments have been applied at a chapter level and can be seen in the ONS' published commodity series using the Standard International Trade Classification (SITC) and the classification of product by activity (CPA) commodity classifications. The data published by HM Revenue and Customs (HMRC) (including those published at a chapter level) have not been adjusted.

### **4 . Summary of the method used to apply adjustments to imports from the EU in 2021**

Adjustments were applied at chapter level for all chapters other than chapter 99 (other products). Multiple data sources were used to calculate lower and upper bounds and mid-point options for the size of the uplift adjustment and followed a decision-tree approach for deciding the most suitable option for each category.

The lower bound consisted of the share of imports in 2022 from traders with an Economic Operators Registration and Identification (EORI) number, who are not Value Added Tax (VAT) registered and not in the 2021 dataset. The Intrastat data collection did not capture any data for non-VAT registered traders.

The upper bound consisted of the lower bound, plus the share of imports in 2022 from traders with an EORI number, who are VAT registered but not found in the 2021 dataset. While considered to be "not found", and while many traders within this VAT-registered grouping were not captured at all in the 2021 data, there is some anecdotal evidence to show that some may have been included in the 2021 data. This may have been either through using a different trader name or EORI number, or the trade may have been reported by a different entity.

We have worked closely with HM Revenue and Customs (HMRC) colleagues to understand the nuances of the data and trader behaviour and decided that the mid-point between the lower and upper bounds would be an appropriate starting point to apply uplift adjustments.

Using the mid-point as the starting point, decisions were made on the scale of the uplift adjustment at chapter level, using additional data sources to validate decisions. The two additional data sources used in this analysis were:

- asymmetry data from Eurostat, comparing total EU level for each chapter
- trade declared through raw customs import declaration data in 2021 (this data source is not otherwise used for contributing to our statistical outputs)

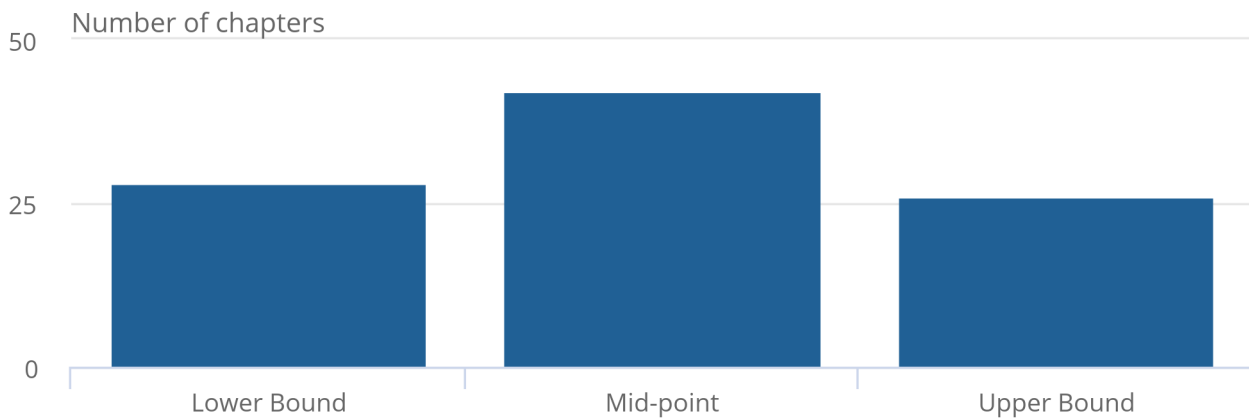
The mid-point of the lower and upper bounds was considered the default decision unless the additional data sources suggest an adjustment of the lower or upper bound values would be more appropriate. As a consequence of this detailed analysis, some chapters were adjusted by the lower or upper bound values, while the remainder had the mid-point uplift adjustment applied (Figure 1). Once the uplift percentages were determined for each chapter, these were applied consistently to all EU imports in Office for National Statistics (ONS) data processing; that is, the same uplift percentage was used for each month of 2021.

**Figure 1: A mid-point uplift adjustment was applied to almost half of chapters**

**Uplift adjustments decisions at chapter level**

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Uplift adjustments decisions at chapter level



**Source: Office for National Statistics – UK trade statistics**

Imports of parcel post from the EU have been identified to account for 0.5% of EU imports trade in 2022. Parcel post is the only component of chapter 99 (other products) that we are applying an adjustment to. Our adjustment for parcel post has therefore been to include an adjustment that will lead to it accounting for 0.5% of trade in 2021. Non-EU imports data demonstrate that parcel post is a seasonal series, so this has been used to inform the monthly levels for this adjustment.

# 5 . Impact of the adjustments on estimates of goods imports from the EU in 2021

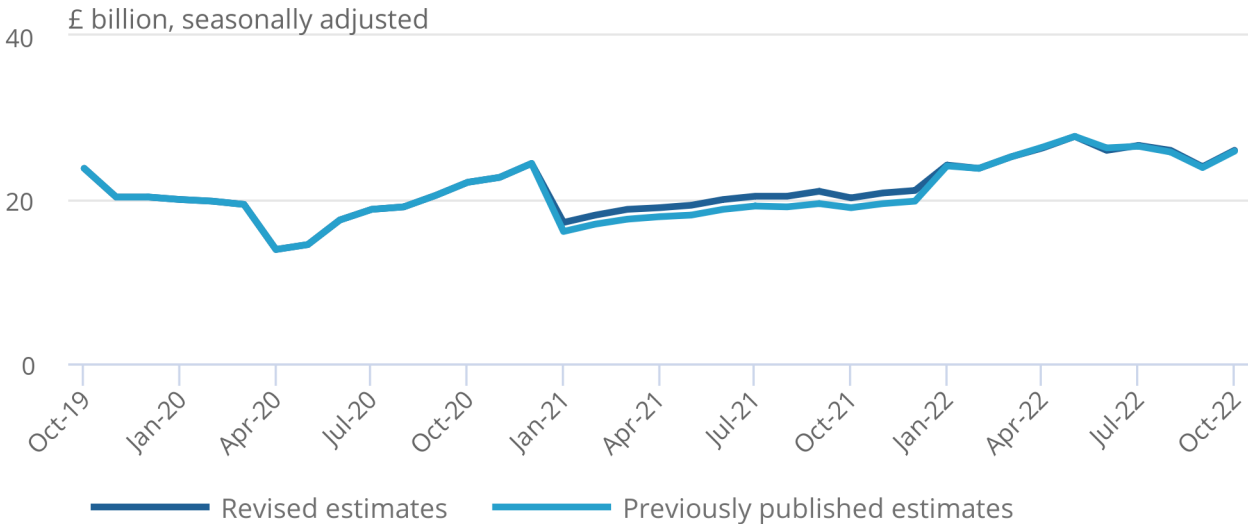
After these adjustments have been applied, the net impact is an overall uplift of 6.6% to goods imports from the EU in 2021. The subsection of the trader population with uplift adjustments applied accounts for a 6.2% share of the revised total imports of goods from the EU in 2021 (Figure 2). This is in line with the previously published discontinuity of approximately 6%.

**Figure 2: Goods imports from the EU have had an uplift adjustment applied to each month of 2021**

Imports of goods from the EU, excluding precious metals, seasonally adjusted, October 2019 to October 2022

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Imports of goods from the EU, excluding precious metals, seasonally adjusted, October 2019 to October 2022



Source: Office for National Statistics – UK trade statistics

Notes:

1. Revisions to 2021 data are because of the uplift adjustments. Any revisions to 2022 data are standard revisions taking place in line with the National Accounts Revision Policy, and not related to the uplift adjustment.

As these adjustments have been made at the chapter level and aggregated to commodity level, the uplifts vary at commodity level (Table 1). Crude materials, and food and live animals, saw the largest uplift adjustments proportionally, with upwards revisions of 12.6% and 11.7%, respectively.

Table 1: Crude materials, and food and live animals, were the commodities with the highest uplift adjustments in percentage terms

Uplift adjustments applied to 2021 estimates by top level commodity (SITC), value of revision (£ million), revised total (£ million) and uplift contribution to revised total (%)

	Revision (£ million)	Revision (%)	Revised total (£ million)	Uplift contribution to revised total (%)
<b>SITC 0: Food and live animals</b>	2,925	11.7	27,948	10.5
<b>SITC 1: Beverages and tobacco</b>	287	3.7	8,054	3.6
<b>SITC 2: Crude materials</b>	877	12.6	7,838	11.2
<b>SITC 3: Fuels</b>	166	1.8	9,271	1.8
<b>SITC 4: Animal and vegetable oils and fats</b>	27	3.0	926	2.9
<b>SITC 5: Chemicals</b>	1,728	4.4	40,694	4.2
<b>SITC 6: Material manufactures</b>	2,176	7.9	29,768	7.3
<b>SITC 7: Machinery and transport equipment</b>	3,063	3.8	82,691	3.7
<b>SITC 8: Miscellaneous manufactures</b>	2,187	8.7	27,220	8.0
<b>Total</b>	14,595	6.6	236,593	6.2

Source: Office for National Statistics – UK trade statistics

#### Notes

1. SITC is Standard International Trade Classification.

Adjustments have been made at chapter level, producing overall uplifts at commodity level. For example, within the food and live animals commodity (Standard International Trade Classification (SITC) 0), vegetables and fruits saw the largest revisions, of £1,026 million (16.9%), which results in the uplift contributing 14.4% to the revised total (Figure 3).

Vegetables and fruits is composed of products from several chapters, predominantly chapter 20 (preparations of vegetables, fruit, nuts or other parts of plants), which accounts for 35.7% of this commodity, chapter 7 (edible vegetables and certain roots and tubers), which accounts for 35.6% of this commodity, and chapter 8 (edible fruit and nuts; peel of citrus fruits or melons), which accounts for 27.3%. The remaining 1.4% of the vegetables and fruits commodity comes from a small number of products from chapters 11 (products of the milling industry; malt; starches; inulin; wheat gluten), 12 (oil seeds and oleaginous fruits; miscellaneous grains, seeds and fruit; industrial or medical plants; straw and fodder) and 19 (preparations of cereals, flour, starch or milk; pastrycooks' products).

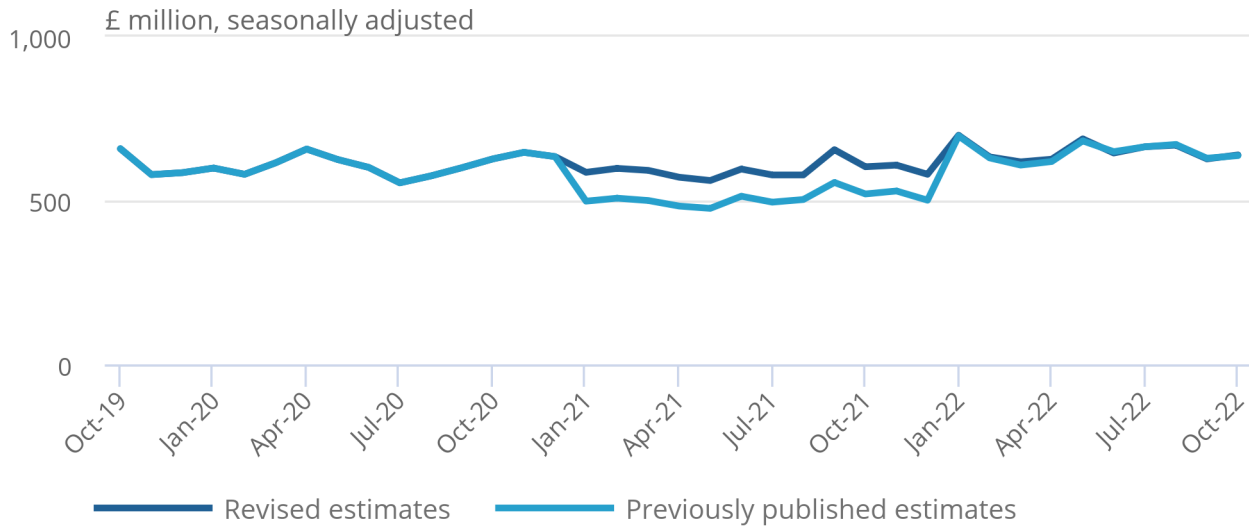
Chapters 7 and 20 received lower-bound uplifts of 18.7% and 15.3%, respectively. The lower-bound option was chosen here, as the other options would have led to a clear divergence from previous trends of asymmetry comparisons with exports to the UK as reported by EU countries. Chapter 8 received a mid-point uplift of 17.6%, as the asymmetry and raw customs declaration data did not provide a strong consensus for choosing an alternative bound.

**Figure 3: An overall 16.9% uplift adjustment was applied to imports of vegetables and fruits from the EU in 2021**

Imports of vegetables and fruits from the EU, seasonally adjusted, October 2019 to October 2022

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Imports of vegetables and fruits from the EU, seasonally adjusted, October 2019 to October 2022



Source: Office for National Statistics – UK trade statistics

Notes:

1. Revisions to 2021 data are because of the uplift adjustments. Any revisions to 2022 data are standard revisions taking place in line with the National Accounts Revision Policy, and not related to the uplift adjustment.

Our [accompanying dataset](#), providing the uplift percentages by chapter, is available.

## Impact of adjustments to parcel post

Our adjustment for parcel post ensured that this accounts for 0.5% of EU imports trade in 2021, which aligns with 2022 proportions, and data on imports of parcel post from non-EU countries have been used to inform the monthly path for this adjustment. Parcel post sits within the unspecified goods commodity (SITC 9), which saw a revision of £1,159 million (113.2%), and the uplift to parcel post imports from the EU, which was not collected in 2021, is the primary driver of the adjustments to unspecified goods (Figure 4). After the adjustments have been implemented, imports of parcel post accounted for 53.1% of the total imports of unspecified goods from the EU.

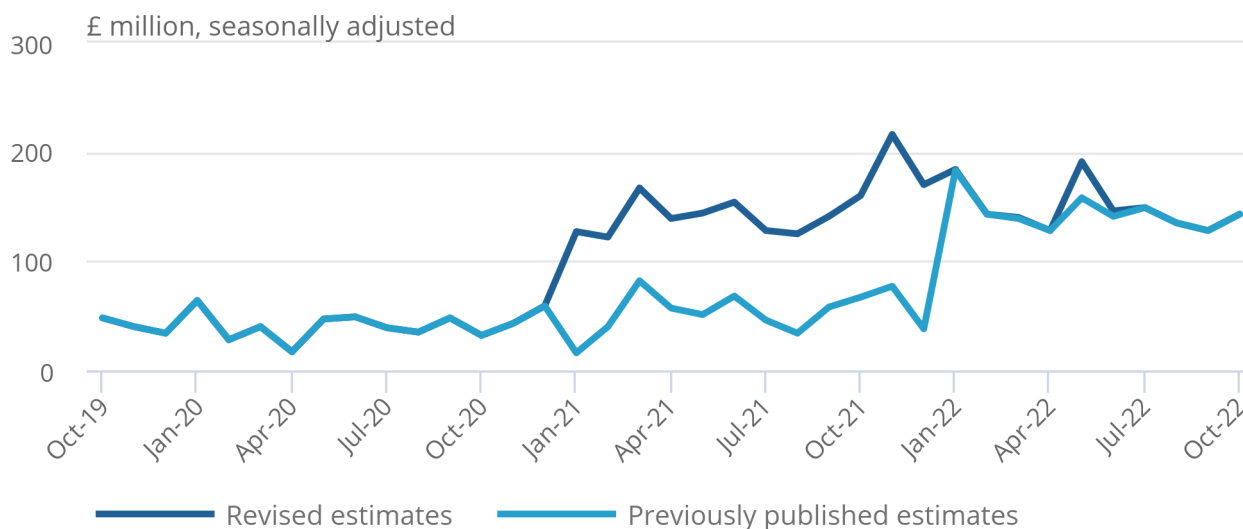
Unspecified goods also includes chapter 93 (arms and ammunition; parts and accessories thereof) and a small amount of chapter 71 (natural or cultured pearls, precious or semi-precious stones, precious metals, metals clad with precious metal, and articles thereof; imitation jewellery; coin) and 87 (vehicles other than railway or tramway rolling-stock, and parts and accessories thereof). However, uplifts adjustments to these chapters have had a minimal impact on the overall uplift to unspecified goods.

### Figure 4: Uplift adjustments to parcel post was the main driver of the substantial revision to imports of unspecified goods from the EU in 2021

Imports of unspecified goods from the EU, excluding precious metals, seasonally adjusted, October 2019 to October 2022

#### Figure 4: Uplift adjustments to parcel post was the main driver of the substantial revision to imports of unspecified goods from the EU in 2021

Imports of unspecified goods from the EU, excluding precious metals, seasonally adjusted, October 2019 to October 2022



Source: Office for National Statistics – UK trade statistics

#### Notes:

1. Revisions to 2021 data are because of the parcel post adjustment. Any revisions to 2022 data are standard revisions taking place in line with the National Accounts Revision Policy, and not related to the parcel post adjustment.



## 6 . Impact of trade in goods data collection changes on UK trade statistics data

### [Trade in goods: adjustments to 2021 EU imports estimates, by chapter](#)

Dataset | Released 13 January 2023

Summary of uplift adjustments that have been applied to the 2021 EU imports data at the chapter level.

### [UK trade: goods and services publication tables](#)

Dataset | Released 13 January 2023

Monthly data on the UK's trade in goods and services, including trade inside and outside the EU.

### [Trade in goods: country-by-commodity imports](#)

Dataset | Released 13 January 2023

Monthly import country-by-commodity data on the UK's trade in goods, including trade by all countries and selected commodities, non-seasonally adjusted.

### [UK trade time series](#)

Dataset MRET | Released 13 January 2023

Monthly value of UK exports and imports of goods and services by current price, chained volume measures (CVMs) and implied deflators (IDEFs).

### [Trade in goods: CPA \(08\) exports and imports](#)

Dataset | Released 13 January 2023

Additional information for UK trade in goods by classification of product by activity.

### [Other related trade data](#)

Dataset web page | Released 13 January 2023

Other UK trade data related to this publication. These include trade in goods for all countries with the UK, monthly export and import country-by-commodity trade in goods data, and revisions triangles for monthly trade data.

## 7 . Future developments

### UK imports from the EU pre-2021

The adjustments described in this article apply for 2021 only and bring imports and exports statistics onto a like-for-like basis. The full timeseries for imports from the EU still contains a discontinuity, but now from January 2021 rather than January 2022. We will work with HM Revenue and Customs (HMRC) to consider possible options to account for this discontinuity.

### UK exports to the EU

In January 2021, [HMRC implemented a data collection change](#) affecting data on exports to the EU from Great Britain (GB). HMRC has investigated the change in data collection methods for UK exports to the EU, concluding that, when comparing the components that form the trade in goods data in 2020 and 2021, there is a discontinuity of around 5% by value between the two compilation methods.

This discontinuity is a combination of data not previously collected under the Intrastat survey, such as parcel post (0.3%) and non-Value Added Tax (VAT) registered traders (1.2%), along with a group of traders using a new or different identifier for their customs declarations (approximately 3.5%).

More detail on the findings of the investigation can be found in our article, [Impact of trade in goods data collection changes on UK trade statistics: 2020 to 2022](#).

Work is ongoing to review the discontinuity in goods exports to the EU, and we are considering possible options to account for this discontinuity. We will keep users informed of any further changes in data collection.

## Staged Customs Controls

In 2021, the use of Staged Customs Controls (SCC) allowed customs declarations to be reported up to 175 days after the date of import for imports of non-controlled goods from the EU to GB. [Full customs controls were introduced in January 2022](#), and as such, July 2022 marked the first full month of data where delayed customs declarations submitted under SCC could not be included. Temporary arrangements still apply for imports of goods from Ireland to GB. While it is not possible to distinguish which customs declarations are associated with SCC, we are reviewing the 2022 import data to determine any effect of SCC. We will keep users informed of any further changes in data collection.

## 8 . Related links

### [UK trade: November 2022](#)

Bulletin | Released 13 January 2023

Total value of UK exports and imports of goods and services in current prices, chained volume measures and implied deflators.

### [Focus on UK trade](#)

Article series | Released 24 August 2022

A series of articles taking a closer look at emerging themes in UK trade statistics.

### [Understanding the latest changes to the UK trade figures with the EU](#)

Blog | Released 11 March 2022

A blog detailing the latest changes to the way HM Revenue and Customs collect data for both imports from, and exports to, the EU.

### [In the balance: Identifying differences between UK and EU trade figures](#)

Blog | Released 8 July 2021

A blog exploring the disparities between EU and UK trade statistics.

### [Trade off: different ways of measuring imports and exports](#)

Blog | Released 14 May 2021

A blog detailing how imports and exports are measured.

### [Impact of the coronavirus and EU exit on the collection and compilation of UK trade statistics](#)

Article | Released 8 March 2021

How the global coronavirus (COVID-19) pandemic and the end of the EU exit transition period impacted on the compilation of UK trade.

## 9 . Cite this article

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